



Element Materials Technology - Fort Wayne
328 Ley Rd.
Fort Wayne, IN 46825
TEL: (260) 424-1622 FAX: (260) 424-9124
Website: www.element.com

August 20, 2020

Nickie Geros
East Chicago Sanitary District
5201 Indianapolis Blvd
East Chicago, IN 46312
TEL: 219-391-8466
FAX:

RE: S-901

Order No.: 20081506

Dear Nickie Geros:

Element Materials Technology - Fort Wayne received 2 sample(s) on 8/13/2020 for the analyses presented in the following report.

In accordance with your instructions, Element Materials Technology Indiana conducted the analysis shown on the following pages on samples submitted by your company. The results relate only to the items tested. Unless otherwise noted, all analysis was conducted using approved methodologies from EPA, SM, or other client-specified methods. All relevant sampling information is on the attached chain-of-custody form. The initials SUB as the analyst designate any testing sub-contracted by Element Materials Technology Indiana.

This report shall not be reproduced except in full, without the written approval of the laboratory.

If you have any questions regarding these test results, please feel free to call.

Sincerely,

Samantha K. Packard
Project Manager
328 Ley Rd.
Fort Wayne, IN 46825



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Case Narrative

WO#: 20081506
Date: 8/20/2020

CLIENT: East Chicago Sanitary District

Project: S-901

The surrogate recovery was outside of acceptance limits for the EPA 625 analysis on sample 20081506-001C due to suspected matrix interference. This data is reported based upon the acceptable recoveries in additional associated QC.

Original



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Analytical Report

(continuous)

WO#: 20081506

Date Reported 8/20/2020

CLIENT: East Chicago Sanitary District

Lab Order: 20081506

Project: S-901

Lab ID: 20081506-001

Collection Date: 8/12/2020 8:28:00 AM

Client Sample ID: #901

Matrix: WASTEWATER

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed |
|--|--------|--------|------|-------------|--------------|----------------------|
| CYANIDE, AVAILABLE BY LIGAND EXCHANGE | | | | OIA-1677-09 | Analyst: CRT | |
| Cyanide, Available | 0.22 | 0.0020 | | mg/L | 1 | 8/19/2020 6:01:00 AM |
| OIL AND GREASE, TOTAL | | | | E1664 | Analyst: HN | |
| Oil & Grease, Total | 11.8 | 5.0 | | mg/L | 1 | 8/14/2020 7:38:28 PM |
| OIL AND GREASE, PETROLEUM HYDROCARBONS | | | | E1664 | Analyst: JGB | |
| Oil & Grease, Petroleum | < 5.0 | 5.0 | | mg/L | 1 | 8/17/2020 3:49:29 PM |
| SV COMPOUNDS FOR CATEGORICAL RQTS | | | | E625 | Analyst: SF | |
| Bis(2-ethylhexyl)phthalate | < 0.10 | 0.10 | | mg/L | 10 | 8/19/2020 2:49:00 PM |
| Carbazole | < 0.10 | 0.10 | | mg/L | 10 | 8/19/2020 2:49:00 PM |
| Fluoranthene | < 0.10 | 0.10 | | mg/L | 10 | 8/19/2020 2:49:00 PM |
| n-Decane | < 0.10 | 0.10 | | mg/L | 10 | 8/19/2020 2:49:00 PM |
| n-Octadecane | < 0.10 | 0.10 | | mg/L | 10 | 8/19/2020 2:49:00 PM |
| SEMI-VOLATILES IN WW | | | | E625 | Analyst: SF | |
| Phenanthrene | < 0.10 | 0.10 | | mg/L | 10 | 8/19/2020 2:49:00 PM |

Qualifiers:

| | | | |
|----|--|-----|--|
| * | Value exceeds Maximum Contaminant Level | H | Holding times for preparation or analysis exceeded |
| M | Manual Integration used to determine area response | ND | Not Detected at the Reporting Limit |
| PL | Permit Limit | PQL | Practical Quantitation Limit |
| RL | Reporting Detection Limit | S | Spike Recovery outside accepted recovery limits |



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Analytical Report

(continuous)

WO#: 20081506

Date Reported 8/20/2020

CLIENT: East Chicago Sanitary District

Lab Order: 20081506

Project: S-901

Lab ID: 20081506-002

Collection Date: 8/12/2020 8:28:00 AM

Client Sample ID: #901

Matrix: WASTEWATER

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed |
|--|---------|---------|------|-------|------------------|-----------------------|
| FLUORIDE | | | | | E300.0 | Analyst: HN |
| Fluoride | 2.9 | 0.5 | | mg/L | 5 | 8/14/2020 6:00:00 PM |
| CHEMICAL OXYGEN DEMAND | | | | | M5220 D | Analyst: DDE |
| Chemical Oxygen Demand | 1,120 | 60.0 | | mg/L | 6 | 8/18/2020 12:21:00 PM |
| AMMONIA AS N | | | | | E350.1 | Analyst: AC |
| Nitrogen, Ammonia (As N) | 100 | 1.00 | * | mg/L | 10 | 8/17/2020 2:58:04 PM |
| PHENOLICS IN WASTEWATER | | | | | E420.1 | Analyst: ANS |
| Phenolics, Total Recoverable | 0.158 | 0.050 | | mg/L | 2 | 8/18/2020 4:08:11 PM |
| TOTAL PHOSPHORUS | | | | | M4500-P F | Analyst: NB |
| Total Phosphorus | 1.23 | 0.050 | | mg/L | 1 | 8/19/2020 11:20:00 AM |
| TOTAL SUSPENDED SOLIDS | | | | | M2540 D | Analyst: DDE |
| Suspended Solids (Residue, Non-Filterable) | 348 | 87 | | mg/L | 1 | 8/17/2020 3:41:00 PM |
| MERCURY | | | | | E245.1 | Analyst: FJR |
| Mercury | 0.00031 | 0.00010 | | mg/L | 1 | 8/19/2020 10:57:54 AM |
| METALS IN WATER BY ICP-MS, TOTALS | | | | | E200.8 | Analyst: FJR |
| Arsenic | 0.0149 | 0.00020 | | mg/L | 1 | 8/17/2020 10:52:18 AM |
| Chromium | 0.0236 | 0.00040 | | mg/L | 1 | 8/17/2020 10:52:18 AM |
| Cobalt | 0.00376 | 0.00010 | | mg/L | 1 | 8/17/2020 10:52:18 AM |
| Copper | 0.0228 | 0.00020 | | mg/L | 1 | 8/17/2020 10:52:18 AM |
| Lead | 0.00219 | 0.00020 | | mg/L | 1 | 8/17/2020 10:52:18 AM |

Qualifiers:

* Value exceeds Maximum Contaminant Level
M Manual Integration used to determine area response
PL Permit Limit
RL Reporting Detection Limit

H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitation Limit
S Spike Recovery outside accepted recovery limits



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Analytical Report

(continuous)

WO#: 20081506

Date Reported 8/20/2020

CLIENT: East Chicago Sanitary District

Lab Order: 20081506

Project: S-901

METALS IN WATER BY ICP-MS, TOTALS

E200.8

Analyst: FJR

| | | | | | |
|------------|-----------|---------|------|----|-----------------------|
| Molybdenum | 0.101 | 0.00200 | mg/L | 10 | 8/19/2020 |
| Nickel | 0.0268 | 0.00100 | mg/L | 1 | 8/17/2020 10:52:18 AM |
| Tin | < 0.00500 | 0.00500 | mg/L | 1 | 8/17/2020 10:52:18 AM |
| Zinc | 0.264 | 0.00400 | mg/L | 10 | 8/19/2020 |

Qualifiers:

| | | | |
|----|--|-----|--|
| * | Value exceeds Maximum Contaminant Level | H | Holding times for preparation or analysis exceeded |
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Original
Page 5 of 6



20081506

| | | | | | | | | | |
|------------------|--|--|--|----------------------|--|--|--|--|--|
| Company Name: | | Client Information: | | Billing Information: | | PO Number: | | Project Name/Number: S 098E -901 | |
| Contact Name: | | East Chicago Sanitary District | | Same | | | | Sampler's Signature | |
| Address: | | Nickie Geros | | | | Quote Number: | | | |
| City, State Zip: | | 5201 Indianapolis Blvd | | | | Required QC Level | | | |
| Phone Number: | | East Chicago IN 46312 | | | | | | Shipping Method: | |
| Fax Number: | | 219-391-8466 | | Ext. 240 | | Bill Monthly | | UPS / FedEx / Airborne | |
| E-mail Address: | | ngereros@eastchicago.com | | | | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | | DHL / <u>Elementary</u> Hand / Mail | |
| Matrix Code | | DW = Drinking Water WW = Waste Water GW = Ground Water AQ = Aqueous OT = Other SL = Sludge O = Oil F = Food NG = Natural Gas NGL = Natural Gas Liquid PW = Produced Water CF = Completion Fluid | | Page 1 of 1 | | Matrix Code | | Page 6 of 6 | |

| Which Regulations Apply: | | Turn Time | (Rush turn times will incur a surcharge and must be pre-approved by lab.) | | Container | Pres. | Requested Tests | | | | | | | Comments | | |
|---|--|------------------------|---|------------------|-----------|---------------------------------------|---|--------------------------------|-------------------|------|---------|-------------------------------|--------|---------------|-----|---|
| <input type="checkbox"/> RCRA <input type="checkbox"/> POTW <input type="checkbox"/> NPDES <input type="checkbox"/> USDA/FDA <input type="checkbox"/> RECAP/IRISC | <input type="checkbox"/> Drinking Water <input type="checkbox"/> Distribution <input type="checkbox"/> Special <input type="checkbox"/> State <input type="checkbox"/> Other | 5 TAT | | | Quantity | Type P=Plastic, G=Glass, V=Vial | HCl, HNO ₃ , H ₂ SO ₄ , NaOH, Na ₂ S ₂ O ₃ | CYANIDE 1677 | Oil & Grease T&SI | SVOC | *Metals | NH ₃ , T.PHOS, COD | PHENOL | 300: Fluoride | TSS | |
| Sample ID/Description | | Collection Information | | | Matrix | | | | | | | | | | | |
| | | Date | Time | Grab / Composite | | | | | | | | | | | | |
| CAF -901 Grab | | 8-12-20 | 8:28 | Grab | WW | 1 | P | NAOH | X | | | | | | | |
| CAF -901 Grab | | | | Grab | WW | 1 | G | H ₂ SO ₄ | X | | | | | | | |
| CAF -901 Grab | | | | Grab | WW | 1 | G | NONE | | X | | | | | | |
| CAF -901 Composite | | | | | | | | | | | | | | | | |
| CAF -901 Composite | | | | Comp | WW | 1 | P | HNO ₃ | | | X | | | | | |
| CAF -901 Composite | | | | Comp | WW | 1 | P | H ₂ SO ₄ | | | | X | | | | |
| CAF -901 Composite | | | | Comp | WW | 1 | G | H ₂ SO ₄ | | | | | X | | | |
| CAF -901 Composite | | | | Comp | WW | 2 | P | NONE | | | | | | X | | X |

*As, Cr, Cu, Pb, Mo, Ni, Zn, & Hg, Extra- Co, Sn, Ag

*Carbazole, n-decane, Fluoranthene, n-octadecane, Phenanthrene, Bis(2EH) Phthalate

Temp. 30.3°C

Samples Meet Acceptance Policy

Yes No

| | Relinquished by | Date/Time | Received by | Date/Time | Composite Sampler: Start Date/Time: 8:12:40 8:28 End Date/Time: 8:13:20 8:21 |
|---|-----------------|--------------|-------------|--------------|--|
| 1 | M. Larkin | 8.13.20/1015 | Jerry D | 8.13.20 1015 | Received at lab on ice? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Temp: 6.0°C |
| 2 | Jerry D | 8.13.20 1510 | PHJ | 8.13.20 1510 | |
| 3 | | | | | |

All samples submitted to Element Materials Technology for analysis are accepted on a custodial basis only. Ownership of the material remains with the client submitting the samples. Element Materials Technology reserves the right to return unused sample portions.

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